OPTIONAL INFORMATION	
Name of School:	Date of Inspection:
Vocational Program/Course/Room:	Signature of Inspector:

SPRAY FINISHING
SELF INSPECTION CHECKLIST

Guidelines: This checklist covers some of the regulations issued by the U.S. Department of Labor - OSHA under the General Industry standards 29 CFR 1910.94 and 1910.107 which were adopted by reference. It also covers the regulations issued by the New Jersey Department of Community Affairs under the Uniform Fire Code (5:18-3.7). It applies to spray finishing operations involving flammable and combustible liquids such as paint, varnish, lacquer or stain. **This checklist must be used in conjunction with the checklist entitled "Flammable and Combustible Liquids."** Definitions of underlined terms are provided at the end of the checklist to help you understand some of the questions. Questions marked with the symbol (☞) may require the help of an outside expert. **The questions that are most likely not the responsibility of the individual teacher are marked with an asterisk (*).**

Spray-finishing operations cannot be conducted in a school except in a room designed for that purpose - protected with an approved fire suppression system and separated vertically and horizontally from other areas. Undercoating spray operations do not have to comply with this checklist if 1) The area has adequate natural or mechanical ventilation, 2) The local fire official approves of the operation; and 3) The undercoating materials use only solvents having a flash point in excess of 100 degrees Fahrenheit.

General Requirements	Please Circle
1. Is smoking and open flames prohibited in any spray finishing area? [N.J.A.C. 5:18-3.7(b)2 and (c)5]	Y N N/A DK

Comments/Corrective Action

2.	Are spraying areas posted with a conspicuous sign reading "No Smoking By Order of the Fire Official"? [N.J.A.C. 5:18-3.7(b)2 and 29 CFR 1910.107(g)(7)]	Y	N	N/A	DK
3.☞	Is there an adequate supply of portable fire extinguishers near all spraying areas? [N.J.A.C. 5:18-3.7(c)9 and 29 CFR 1910.107(f)(4)] Note: Consult your local fire official.	Y	N	N/A	DK
4.	Are approved metal waste cans equipped with self-closing lids provided wherever rags or waste are impregnated with finishing material and are all such rags or waste deposited therein immediately after use? [N.J.A.C. 5:18-3.7(c)10v]	Y	N	N/A	DK

Construction

5.	Are spray booths substantially constructed with securely and rigidly supported steel, concrete or masonry? [29 CFR 1910.107(b)(1)]	Y	N	N/A	DK
6.	Are floor and baffle plates in spray booths constructed of noncombustible material? [N.J.A.C. 5:18-3.7(c)ii & (c)(iii) and 29 CFR 1910.94(c)]	Y	N	N/A	DK
7.	Are spray booth interiors smooth and continuous without edges and designed to prevent accumulations of residues? [N.J.A.C. 5:18-3.7(c)3i and 29 CFR 1910.107(b)(2)]	Y	N	N/A	DK
8.	Does each spray booth having a frontal area larger than nine square feet, have a metal deflector or curtain not less than 4 and 1/2 inches deep installed at the upper outer edge of the booth, over the opening? [N.J.A.C. 5:18-3.7(c)3iv]	Y	N	N/A	DK

Comments/Corrective Action

9.	Are spraying operations and booths separated from other operations by at least three feet or partition or wall to reduce the hazard? [N.J.A.C. 5:18-3.7(c)3v and 29 CFR 1910.107(b)(8)]	Y N N/A DK
10.	Are spray booths installed that all portions are readily accessible for cleaning? [N.J.A.C. 5:18-3.7(c)3vi]	Y N N/A DK
11.	When spraying areas are illuminated through glass panels or other translucent materials, are only fixed lighting units used as a source of illumination? [N.J.A.C. 5:18-3.7(c)3vii and 29 CFR 1910.107(b)(10)]	Y N N/A DK
12.☞	Are all motors, wiring, and lighting fixtures not separated by a partition and located within 20 feet from spray finishing operations explosion proof? [N.J.A.C. 5:18-3.7(c)5ii and 29 CFR 1910.94(c) & 1910.107(c)(6)]	Y N N/A DK
13.	Are spray booth interiors protected with an automatic fire suppression system? [N.J.A.C. 5:18-3.7(c)9 and 29 CFR 1910.107(b)(5)(iv)] Note: OSHA requires an automatic fire sprinkler system.	Y N N/A DK
14.	Are hot surfaces such as space heaters, appliances and steam pipes located away from spray finishing operations? [N.J.A.C. 5:18-3.7(c)6 and 29 CFR 1910.107(c)(3)]	Y N N/A DK
15.☞	Are all metal parts of spray booths, exhaust ducts and piping systems effectively and permanently grounded? [29 CFR 1910.107(c)(4)]	Y N N/A DK

Comments/Corrective Action

Operations and Maintenance

16. Are spray booth interiors free from accumulated deposits? [N.J.A.C. 5:18-3.7(c)3ii & (c)10 and 29 CFR 1910.107(b)(2) & (g)(2)] Y N N/A DK

    Note: combustible coverings (thin paper, plastic, and so forth) and strippable coatings may be used to facilitate cleaning operations.

17. Are tools used for scraping residues and debris nonsparking? [N.J.A.C. 5:18-3.7(c)10i and 29 CFR 1910.107(g)(2)] Y N N/A DK

18. Are residue scrapings and debris immediately removed from the premises and disposed of properly? [N.J.A.C. 5:18-3.7(c)10ii and 29 CFR 1910.107(g)(3)] Y N N/A DK

19. Are cleaning solvents restricted to those with flash points above 100 ºF? [N.J.A.C. 5:18-3.7(c)10iii and 29 CFR 1910.107(g)(3)] Y N N/A DK

20. Are cleaning operations using flammable or combustible solvents conducted inside spray booths with the ventilating equipment operating during the cleaning procedure? [N.J.A.C. 5:18-3.7(c)10iii] Y N N/A DK

21. Are fire sprinkler heads kept free of accumulated deposits? [29 CFR 1910.107(f)(3)] Y N N/A DK

22. Are spray booth filters and filter rolls noncombustible or of an approved type? [N.J.A.C. 5:18-3.7(c)4iii] Y N N/A DK

Comments/Corrective Action

23.	Are spray booth filters and filter rolls prohibited from use when applying a spray material known to be highly susceptible to spontaneous heating and ignition? [N.J.A.C. 5:18-3.7(c)4iv]	Y	N	N/A	DK
24.	Are the same spray booth filters and filter rolls not used for different types of coating materials where the combination of materials may be conducive to spontaneous ignition? [N.J.A.C. 5:18-3.7(c)4v]	Y	N	N/A	DK
25.	Are spray booth overspray filters regularly inspected, cleaned and replaced? [29 CFR 1910.94(c)]	Y	N	N/A	DK
26.	Are spray booth overspray filters discarded at the end of each day unless maintained completely in water? [N.J.A.C. 5:18-3.7(c)4i and 29 CFR 1910.107(b)(5)(ii)]	Y	N	N/A	DK
27.	Is at least 3 feet on all sides of a spray booth free of any stored combustible materials? [N.J.A.C. 5:18-3.7(c)3vi]	Y	N	N/A	DK

Flammable and Combustible Liquids

28.	Is the quantity of flammable or combustible liquids kept in the vicinity of spraying operations no greater than that required for one day? [29 CFR 1910.107(e)(2)]	Y	N	N/A	DK
29.	If the quantity of flammable or combustible liquid outside of sealed original containers is greater than 10 gallons, is it stored in an approved storage cabinet or an interior storage room? [N.J.A.C. 8:15-3.7(c)8i]	Y	N	N/A	DK

Comments/Corrective Action

30.	Are all flammable and combustible liquids transported in closed containers, approved portable tanks, approved safety cans or closed piping? [N.J.A.C. 8:15-3.7(c)8ii and 29 CFR 1910.107(e)(3)]	Y N N/A DK
31.	Are all flammable and combustible liquids in containers larger than 60 gallons transferred by means of an approved pump? [29 CFR 1910.107(e)(4)]	Y N N/A DK
32.	Do all containers or pipes attached to flexible hoses have shut-off valves at the connections? [N.J.A.C. 8:15-3.7(c)8iv and 29 CFR 1910.107(e)(6)(i)]	Y N N/A DK
33.	When flammable liquids are transferred from one container to another, are both containers bonded and grounded? [N.J.A.C. 8:15-3.7(c)8vii and 29 CFR 1910.107(e)(6)(iv)]	Y N N/A DK
34.	Are containers supplying spray nozzles of a closed type or are they provided with a metal cover? [N.J.A.C. 8:15-3.7(c)8iii]	Y N N/A DK
35.	Are containers supplying spray nozzles resting on floors, on noncombustible supports or suspended by wire cables? [N.J.A.C. 8:15-3.7(c)8iii]	Y N N/A DK
36.	Are containers supplying spray nozzles by gravity flow no more than 10 gallons in size? [N.J.A.C. 8:15-3.7(c)8iii]	Y N N/A DK
37.	If flammable or combustible liquids are supplied to spray nozzles by positive displacement pumps, has a means been provided to prevent the discharge pressure from exceeding the operating pressure of the system? [N.J.A.C. 8:15-3.7(c)8vi]	Y N N/A DK

Comments/Corrective Action

Ventilation

38.	Are spraying areas provided with mechanical ventilation which is kept in use during spraying? [29 CFR 1910.107(d)(2)]	Y N N/A DK
39.☞	Do spraying operations have sufficient ventilation to maintain student/teacher exposures to within acceptable limits? [29 CFR 1910.94(c)]	Y N N/A DK
40.	Are spray booths designed to sweep air currents toward the exhaust outlet? [29 CFR 1910.107(b)(a)]	Y N N/A DK
41.	Do exhaust ventilation systems appear to be well constructed and in good working order? [29 CFR 1910.94(a) through (d)]	Y N N/A DK
42.☞	Is the average velocity of air flowing into the face of spray booths maintained at least 100 feet per minute? [29 CFR 1910.94(c)(6)(i) and 1910.107(b)(5)(i)] Note: Electrostatic spraying operations may be conducted with an average air velocity not less than 60 feet per minute.	Y N N/A DK
43.	Are visible gauges, audible alarms or pressure activated devices installed to indicate or insure that the required air velocity is maintained? [29 CFR 1910.107(b)(5)(i)]	Y N N/A DK
44.	Are doors to downdraft booths kept closed when booth is in operation? [29 CFR 1910.94(c)(6)((iii)(b)]	Y N N/A DK

Comments/Corrective Action

45.	Is clean fresh makeup air supplied to area to replace the volume of air exhausted through the spray booth? [29 CFR 1910.94(c)(7)] Note: If outdoor air temperature is less than 55 ^{o}F, makeup air must be heated.	Y N N/A DK
46.	Do all spray booths have independent exhaust stacks to the outside? [29 CFR 1910.107(d)(3)]	Y N N/A DK
47.	Are all fan rotating elements constructed of nonferrous or nonsparking materials? [29 CFR 1910.107(d)(4)]	Y N N/A DK
48.	Are electric motors driving the exhaust fans placed ouside booths or ducts? [29 CFR 1910.107(d)(5)]	Y N N/A DK
49.	Are belts and pulleys in ducts used to drive the fan blades thoroughly enclosed? [29 CFR 1910.107(d)(6)]	Y N N/A DK
50.	Are spray booth exhaust duct terminals located at least six feet from any combustible exterior wall or roof and prevented from discharging in the direction of any combustible construction? [29 CFR 1910.107(d)(8)]	Y N N/A DK
51.	Is spray booth exhaust air directed so that it will not contaminate make-up air or create a nuisance? [29 CFR 1910.107(d)(9)]	Y N N/A DK
52.	Are exhaust ducts fitted with access doors where needed for cleaning? [29 CFR 1910.107(d)(10)]	Y N N/A DK

Comments/Corrective Action

53. Are freshly spray finished articles set to dry in areas with adequate ventilation and if not, are those areas treated as spraying areas? [29 CFR 1910.107(d)(12)] Y N N/A DK

54.*☞ Does the ventilation system comply with the New Jersey Department of Environment and Energy regulations on air pollution? (See "Air Pollution Control" checklist) Y N N/A DK

Drying

55. Are drying operations which might cause a material increase in surface or room temperature prohibited in spray booths, rooms or other enclosures used for spraying operations? [N.J.A.C. 8:15-3.7(c)11i] Y N N/A DK

56. Are portable infrared drying apparatus only permitted in automobile refinishing booths or enclosures when all of the following conditions have been met? [N.J.A.C. 8:15-3.7(c)11iii] Y N N/A DK

a) The procedure is restricted to low-volume, occasional spray application;

b) The interior of spray enclosures is kept free of overspray deposits;

c) During spray operations, the drying apparatus and electrical connections and wiring must not be located within the spray enclosure nor in any other location where spray residues may be deposited;

Comments/Corrective Action

d) Spraying apparatus, drying apparatus and the ventilating system of the spray enclosure are equipped with suitable interlocks so that 1) The spraying apparatus cannot be operated while drying apparatus is inside the spray enclosure; 2) The spray enclosure is purged of spray vapors for a period of not less than 3 minutes before drying apparatus can be energized; and 3) The ventilating system will maintain a safe atmosphere within the enclosure during the drying process and drying apparatus will automatically shut off in the event of failure of the ventilating system; and

e) Electrical wiring and equipment is appropriate for area and all metallic parts of the drying apparatus is electrically bonded and grounded.

Electrostatic Apparatus	Y	N	N/A	DK
57. Are only approved electrostatic equipment used in connection with paint spraying operations? [N.J.A.C. 5:18-3.7(e)1]				
58. Are transformers, power packs, control apparatus and all other electrical portions of the equipment, with the exception of high voltage grids and electrostatic atomizing heads and their connection, located outside of the spraying or vapor areas? [N.J.A.C. 5:18-3.7(e)2]				
59. Is a space of at least twice the sparking distance maintained between goods painted and fixed electrodes, electrostatic atomizing head or conductors? [N.J.A.C. 5:18-3.7(e)3]				

Note: A suitable sign stating the sparking distance is to be posted near the assembly.

Comments/Corrective Action

60. Are electrostatic apparatus equipped with automatic controls which operate without time delay to disconnect the power supply to the high voltage transformer and to signal the operator under any of the following conditions? [N.J.A.C. 5:18-3.7(e)4] Y N N/A DK

    a) Stoppage of ventilating fans or failure of ventilation equipment from any cause;

    b) Stoppage of the conveyor carrying goods past the high voltage grid;

    c) Occurrence of a ground or of an imminent ground at any point of the high voltage system; or

    d) Reduction of clearance below that specified in question 58 above.

61. Are hand electrostatic equipment interlocked with the ventilation system for the spraying area so that the equipment cannot be operated unless the ventilating system is in operation? [N.J.A.C. 5:18-3.7(e)4] Y N N/A DK

62. Are adequate booths, fencing, railings or guards placed about the equipment that safely isolate the process from storage and teachers/students? [N.J.A.C. 5:18-3.7(e)5] Y N N/A DK

    Note: Such railings, fencing and guards shall be of conducting material, adequately grounded and shall be at least five feet from processing equipment.

63. Are signs posted designated the process zone as dangerous with respect to fire and accident? [N.J.A.C. 5:18-3.7(e)6] Y N N/A DK

Comments/Corrective Action

64. Are all insulators kept clean and dry? [N.J.A.C. 5:18-3.7(e)7] Y N N/A DK

Definitions:

Approved means approved and listed by a nationally recognized testing laboratory.

Bonded means the permanent joining of metallic parts to form an electrically conductive path which will assure electrical continuity and the capaicty to conduct safely any current likely to be imposed.

Combustible means any liquid having a flashpoint at or above 100 ^{o}F but below 200 ^{o}F.

Flammable means any liquid having a flashpoint below 100 ^{o}F.

Grounded means connected to earth or to some conducting body that serves in place of the earth.

Spraying area means any area in which dangerous quantities of flammable vapors or mists, or combustible residues, dusts, or deposits are present due to the operation of spraying processes. This shall include the interior of spray booths, the interior of ducts exhausting from spraying processes, and any area in the direct path of spray.

Spray booth means a power-ventilated structure provided to enclose or accommodate a spraying operation to confine and limit the escape of spray, vapor, and residue, and to safely conduct or direct them to an exhaust system.

Comments/Corrective Action